

CLAIMS

What is claimed is:

1 1. A system for establishing a secure execution environment for a
 2 software process executed by a program operating on a computer, comprising:
 3 a software process operating on a computer, said software process including a
 4 plurality of attributes;
 5 an operating system kernel in communication with said software process and
 6 in communication with an executable file to be accessed by said software process; and
 7 a system call trap associated with said operating system kernel, said system
 8 call trap configured to assign a selected plurality of said attributes to said software
 9 process, said selected plurality of attributes stored in association with said executable
 10 file.

1 2. The system of claim 1, wherein said system call trap further comprises:
 2 a process attribute extension; and
 3 an access token extension associated with said process attribute extension, said
 4 access token extension including said selected plurality of attributes.

1 3. The system of claim 1, wherein said selected plurality of attributes are
 2 contained in a database associated with said executable file.

1 4. The system of claim 1, wherein said selected plurality of attributes are
 2 chosen from the group consisting of user ID, group IDs and privileges.

1 5. The system of claim 1, wherein said execution environment isolates
2 said software process from any other software process operating on said computer.

1 6. The system of claim 1, wherein said software process is a web server
2 process.

1 7. The system of claim 1, wherein said software process is a file transfer
2 process.

1 8. The system of claim 1, wherein said software process is a mail server
2 process.

1 9. The system of claim 1, wherein said selected plurality of attributes are
2 associated to said software process upon execution of said software process.

1 10. The system of claim 1, wherein said selected plurality of attributes
2 replaces any existing attributes associated with said software process.

1 11. A method for establishing a secure execution environment for a
2 software process executed by a program operating on a computer, the method
3 comprising the steps of:
4 operating a software process on a computer, said software process including a
5 plurality of attributes;
6 executing an operating system kernel in communication with said software
7 process, said operating system kernel in communication with an executable file to be
8 accessed by said software process; and
9 assigning a selected plurality of said attributes to said software process, said
10 selected plurality of attributes stored in association with said executable file.

1 12. The method of claim 11, further comprising the steps of:
2 executing a process attribute extension; and
3 executing an access token extension associated with said process attribute
4 extension, said access token extension including said selected plurality of attributes.

1 13. The method of claim 11, wherein said selected plurality of attributes
2 are contained in a database associated with said executable file.

1 14. The method of claim 11, wherein said selected plurality of attributes
2 are chosen from the group consisting of user ID, group IDs and privileges.

1 15. The method of claim 11, wherein said execution environment isolates
2 said software process from any other software process operating on said computer.

1 16. The method of claim 11, wherein said software process is a web server
2 process.

1 17. The method of claim 11, wherein said software process is a file transfer
2 process.

1 18. The method of claim 11, wherein said software process is a mail server
2 process.

1 19. The method of claim 11, wherein said selected plurality of attributes
2 are associated to said software process upon execution of said software process.

1 20. The method of claim 11, wherein said selected plurality of attributes
2 replaces any existing attributes associated with said software process.

1 21. A computer readable medium having a program for establishing a
2 secure execution environment for a software process executed by a program operating
3 on a computer, the program including logic for performing the steps of:
4 operating a software process on a computer, said software process including a
5 plurality of attributes;
6 executing an operating system kernel in communication with said software
7 process, said operating system kernel in communication with an executable file to be
8 accessed by said software process; and
9 assigning a selected plurality of said attributes to said software process, said
10 selected plurality of attributes stored in association with said executable file..

1 22. The program of claim 21, further comprising logic for performing the
2 steps of:
3 executing a process attribute extension; and
4 executing an access token extension associated with said process attribute
5 extension, said access token extension including said selected plurality of attributes.

1 23. The program of claim 21, wherein said selected plurality of attributes
2 are contained in a database associated with said executable file.

1 24. The program of claim 21, wherein said selected plurality of attributes
2 are chosen from the group consisting of user ID, group IDs and privileges.

1 25. The program of claim 21, wherein said execution environment isolates
2 said software process from any other software process operating on said computer.

1 26. The program of claim 21, wherein said software process is a web
2 server process.

1 27. The program of claim 21, wherein said software process is a file
2 transfer process.

1 28. The program of claim 21, wherein said software process is a mail
2 server process.

1 29. The program of claim 21, wherein said selected plurality of attributes
2 are associated to said software process upon execution of said software process.

1 30. The program of claim 21, wherein said selected plurality of attributes
2 replaces any existing attributes associated with said software process.

ADD AZ